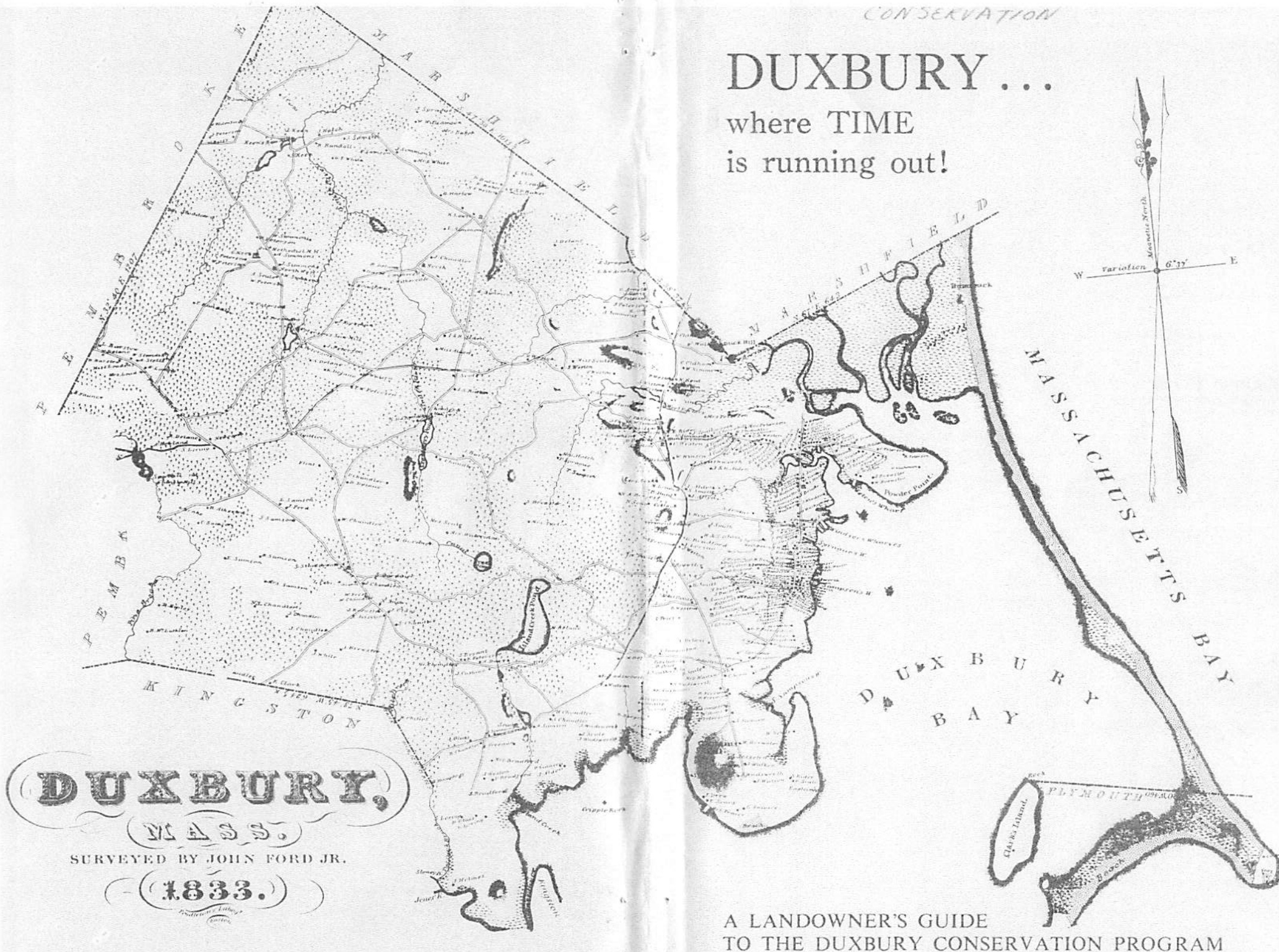


CONSERVATION

DUXBURY...

where TIME
is running out!



A LANDOWNER'S GUIDE
TO THE DUXBURY CONSERVATION PROGRAM

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TO THE
DUXBURY CONSERVATION PROGRAM



Prepared
by
THE DUXBURY CONSERVATION COMMISSION
1972

A COMMITMENT TO CONSERVATION

1970 - 1972

The preface to the Open Space section of the 1969 Town Plan states, "Open Space should be used as a natural framework for the future land use development in Duxbury . . . so that the character of Duxbury can be preserved for future generations."

Conservation in Duxbury primarily involves two things, Open Space and Water Resources. In keeping with this concept the 1970 Town Meeting unanimously voted a "Commitment to Conservation" which launched a program of land acquisition and resource protection more extensive than any other town's in the Commonwealth.

This booklet is designed to acquaint you with what has been accomplished, and what remains to be done.

THE GREENBELT PROGRAM

The heart of the Open Space concept lies in the establishment of three Greenbelts across Duxbury. Each belt follows the course of a major watershed and seeks to protect this resource from the influence of the development that must logically take place on the adjacent upland.

Eastern Greenbelt

Beginning at the Duck Hill River this belt proceeds along the West Brook into the North Hill Marsh. The Town Forest forms the core of this belt and connects it to Island Creek Pond, thence it runs into the Mill Pond, down Island Creek to Kingston Bay.

Western Greenbelt

This belt is designed to protect the South River and its tributaries, Keene's Brook, and Phillips Brook. Beginning at its source, Round Pond, the South River flows through the town-owned Cranberry Factory Pond, and thence through a series of marshlands and reservoirs to exit into Marshfield where it also contributes to that town's water supply. The upland center of this greenbelt lies along the Phillips Mill Pond, where a new Town Forest has been established in an area undergoing heavy pressure from development. Over 300 acres of upland are included in this forest.

Intermediate Belts

Throughout Duxbury there are some 700 acres of cranberry bogs and their reservoirs. Many of these contribute to the two major belts. The Commission seeks to protect these wetlands and prevent their filling for marginal housing.

Coastal Wetlands

The coastal wetlands of Duxbury are a resource whose value cannot be calculated in simple terms. In these almost 2000 acres the marine food chain begins. Each acre produces more protein than a comparable field

of grain. The smallest strip of coastal marsh contributes to protecting the upland shore from the erosion of coastal storms. Recognizing their value the legislature has passed certain dredge and fill laws, and the Commissioner of Natural Resources has levied a Coastal Wetlands Protective Order on them. But the Town, through its Wetlands and Watershed Protection District has done the most to protect them. However, the best protection is to own them, and the Conservation Commission has been seeking to acquire title to as much coastal wetland as possible, and easements on the remainder.

BLUEFISH RIVER

The Duxbury Rural and Historical Society has devoted a significant amount of effort to extending its Abutters' Agreement along the course of the Bluefish and now has 19 properties conserved.

MAP

Attached is an assessors' map of Duxbury with the conservation lands appropriately delineated. Briefly, among the first land set aside for public use in conservation was the Knapp property on Mayflower Street. A stone monument marks the site and honors the donor. From this beginning a Town Forest of 103 acres was developed.

The Whiton property off Temple Street was the first acquisition of the Greenbelt Program and the Conservation Commission is grateful to the Whitons for their help and confidence. This 32 acre tract protects two water courses.

The New Town Forest area extends from Cross St. to Keene St. and consists of the Phillips Mill Pond (Trout Farm) with its dam and fishing, a portion of the reservoir off Summer St. and over 300 acres of upland formerly belonging to the Lot Phillips Corporation.

Keene's Brook is protected by acquisitions along a generous portion of its length beginning with the Davis property on Congress St., thence across that street and through lands acquired from the DeMaranville's and the Gilbert West Company. The Conservation Commission has been working with the District Forester on a plan to harvest these woodlands together with those in the town forests.

In 1971 the Town acquired two valuable parcels along the South River, the Loring lands and the North Slope of the South River. The Loring land is the large reservoir and bog complex surrounded by upland, west of the expressway at East Street. It abuts the town property at Chandler Field and offers excellent recreational and wildlife activity. The bogs are currently leased by the Town to a private grower at a fee of \$1.25 per barrel sold. The return to the Town last year was \$3986. The North Slope of the South River was to have been developed into over 30 house lots. The Town already owns a small parcel on the South slope due to a prudent purchase by the first Conservation Commission, so that a significant open space has been left in the midst of a large development.

The Commission has purchased a few small parcels of salt marsh and expects to receive additional acreage as gifts.

LANDS INDEX

Property held for conservation before the Greenbelt Program consisted of:

Mayflower Street Town Forest

Block N-64C1,82,83,84,85,86-1-2-3,90	73.3 acres
Block J-69,70,71,72,72A,73 (Acquired in 1969)	30.37 acres
Total	103.67 acres

The Greenbelt Program has added one parcel, Block N-83A, 0-32	12.00 acres
Total	115.67 acres

NAME	LOCATION	ACREAGE	UPLAND	WETLAND	RESOURCE INVOLVED
Whiton Property Lot Phillips	E-32-4 E-25, 31	32.5 16.0	32.5 6.0	10.0	Inland wetlands
NEW TOWN FOREST					
Phillips Mill Pond (Trout Farm)	C-39, 40A, 41A	44.0	35.0	9.0	Access from Cross St., Union or Franklin St. Contains stream on one portion and pond on the other, excellent hiking and camping area, trout in season.
Hancock Homes	B-35	24.5	22.0	2.5	
Henry Parcel	H-7H	.6	.6		
Lot Phillips Corp.	B-41, 43D, 37, 29A, 29A2, 49, 50	95.7	65.0	30.7	
	C-40, 41, 43 thru 48,	138.8	135.0	3.8	
	H-7G, H-20, 21	22.4	20.0	2.4	
	C-19A, H-18, 28	16.1	15.0	1.1	
KEENE'S BROOK PROTECTION					
Lot Phillips Corp	B-63	51.9	45.0	6.9	1969 Town Plan calls for acquisition of as much open space on Keene's Brook as possible. Land is considered marginal for building and stream is essential for water supply.
DeMaranvilles' Parcel	B-46, 62, 92, 95	46.22	44.0	2.22	
Gilbert West	B-91	16.85	12.0	4.85	
Davis Parcel	B-17B, 18D	10.0	9.0	1.0	
SOUTH RIVER PROTECTION					
North Slope Cranberry Factory Pond	A-2A, 4A, 5A, 6A	97.7	33.0	64.7	Includes 52 acres of producing bog.
	I-28A, 28B				
	33 thru 37, 43, 52-54	187.84	70.0	117.84	
	H-49, 50				
	TOTAL	801.11	544.1	257.01	ACRES

THE WETLAND AND WATERSHED PROTECTIVE BY-LAW

The Town of Duxbury Protective By-Law begins with the following paragraph;

General Information

THE PROTECTIVE BY-LAW is for the purpose of protecting the health, safety, convenience and general welfare of all the inhabitants of the Town, to lessen the danger from fire, congestion and confusion, and to improve, and beautify the Town under and pursuant to the provisions of the General Laws. It is also for the purpose of protecting and preserving from despoilation the natural features and resources of the Town, such as saltmarshes, wetlands, brooks, and ponds. No obstruction of streams or tidal rivers, and no excavation or filling of any marsh, wetland, or bog shall be done without proper authorization by a Special Permit issued by the Board of Appeals as required under the provisions of this By-Law relative to the Wetland and Watershed Protection District.

In 1960 an enlightened town meeting passed an amended Protective By-Law to prevent despoilation of the wetlands. This law has since served as a model for similar legislation in Massachusetts and other states. It stood unchanged until the increasing pressures of housing development necessitated a clearer definition of what areas constituted the "wetland" referred to in the by-law. In 1970 the Conservation Commission engaged the services of Charles E. Downe, a qualified regional planner, to update the wetland portion of the law. Specifically the Commission requested:

- (1) A clear delineation of inland and coastal wetlands, 5 acres in size and over, that would accommodate their seasonal fluctuations in size,
- (2) A simplified base map of these areas that a lay person could use to determine if a specific lot lay within the protected zone,
- (3) Help with the drafting of a by-law that would be as unconfiscatory as possible, flexible enough to allow for appeals and correction of errors, and still serve to protect these resources.

Briefly, the 1971 town meeting passed a by-law that met these requirements. A portion of the by-law is a Wetlands and Watershed Protective District Map drawn in a manner and by methods proper and accurate for the establishment of the district boundry, but which does require some field survey work to supplement the mapping.

The following sources of information were used as a basis for the mapping;

- (1) U. S. Geologic Survey, Duxbury and Hanover Quadrangle, topographical maps.
- (2) Aerial photographs of the Town of Duxbury, 1969 and 1970 fly-over for the Massachusetts Department of Public Works.

- (3) Wetland maps prepared by the Raytheon Manufacturing Company using stereoscopic interpretation of these photographs. Technique is the same employed by Massachusetts Department of Natural Resources to determine lands subject to the Inland Wetlands Act.
- (4) Soil Survey, Duxbury, U. S. Department of Agriculture, Nov. 1970.
- (5) U.S. Army Corps of Engineers coastal flooding data.

Based on the elevations recorded on the U. S. Geologic Survey topographical maps the cartographer placed the district boundaries on contour lines measured at 10 foot intervals from Mean Sea Level. He updated the U. S. G. S. maps in regard to land forms, water bodies, and vegetation, and verified areas with Soil Survey information. Most of the boundaries are defined by elevation so that a surveyor in the field would have no trouble drawing the line on the ground. Other bounds are marked as distances from known points. Elevations were chosen that would include the wetland and provide a margin of safety above the normal level of ground water so that septic tanks and foundations would not be placed in marginal areas. In any case, the on-site line can be determined by a surveyor by determining the elevation, or the distance from a known point, as in any property line. The map serves to indicate which properties are included in the protected zone.

DUXBURY PROTECTIVE BY-LAW

Section 5. WETLAND AND WATERSHED PROTECTION DISTRICT

(a) **General**—This section does not grant any property rights; it does not authorize any person to trespass, infringe upon or injure the property of another; it does not excuse any person of the necessity of complying with other sections of this by-law or other applicable laws, regulations and by-laws.

(b) **Location**—The locations and boundaries of the Wetland and Watershed Protection District shall be shown on a map entitled "Map of the Wetland and Watershed Protection Districts in the Town of Duxbury, Massachusetts" dated March 4, 1971, on file at the Duxbury Town Office and said map with all its contents is a part of this Protective By-Law. All areas in said Wetland and Watershed Protection District are subject to the regulations set forth in the following paragraphs (c) to (j) inclusive, so that, no obstruction of streams or tidal rivers and no excavation or filling of any marsh, wetland or bog shall be done without proper authorization by a Special Permit issued by the Board of Appeals as required under the provisions of this by-law relative to the Wetlands and Watershed Protection Districts.

(c) **Allowed Uses**—In a Wetland and Watershed Protection District, the following uses are allowed as a matter of right.

- (1) Conservation of soil, water, plants and wildlife, including wildlife management shelters;
- (2) Outdoor recreation including play and sporting areas, nature study, boating, fishing, and hunting where otherwise legally permitted, including duck blinds and foot-bicycle-horse paths;
- (3) Proper operation and maintenance of dams and other water control devices, including temporary alteration of the water level for agricultural, emergency, or maintenance purposes or for the propagation of fish;
- (4) Forestry, grazing, farming, nurseries, truck gardening and harvesting of crops including, but not limited to, such crops as cranberries, marsh hay, seaweed, berries, fruits and seeds and including non-residential buildings or structures used only in conjunction with fishing, shellfishing or the growing, harvesting or storage of crops raised on the premises;
- (5) Accessory uses, such as flower or vegetable gardens, lawns, fences and signs not exceeding three square feet in size.

(d) **Permitted Uses By Exception**—Upon issuance of a special permit for an exception by the Board of Appeals, and subject to such special conditions and safeguard as the Board of Appeals deems necessary to fulfill the purposes of this Section 5, the following uses and structures are permitted:

- (1) Footbridges and plank walks;
- (2) Appropriate municipal uses, such as water works, pumping stations and parks;

- (3) Temporary storage of materials or equipment for a period not to exceed three months in any calendar year, said permit renewable for one additional three-month period only;
- (4) Dams, excavations, or changes in watercourse to create ponds or pools for swimming, fishing, wildlife, or other recreational or agricultural use, scenic features, or for drainage improvements; and
- (5) Boat landings and boat houses, the latter not to exceed 20 feet in height nor 100 square feet in total ground coverage.

(e) Prohibited Uses—Dumping, filling, excavating or transferring of any material which will reduce the natural water storage capacity of the land, interfere with the natural flow patterns of any watercourses or degrade the quality of surface or ground water within this District is prohibited, except as provided in paragraphs (c) and (d) herein and activities that are incidental to flood or mosquito control work performed by or under the direction of an authorized governmental agency or activities incidental to the agricultural uses described in section (c).

(f) Exemptions—The following are specifically exempt from the provisions of this Section 5:

- (1) All residential dwellings, and those portions only of the lots therefor needed for such repair, rebuilding, modification or enlargement of buildings existing in the Wetland and Watershed Protection District on March 13, 1971.
- (2) All commercial and business buildings, and those portions only of the lots therefor needed for such repair, rebuilding, modification or enlargement of buildings existing in the Wetland and Watershed Protection District on March 13, 1971.
- (3) All residential, commercial and business buildings, and those portions only of the lots therefor needed for such repair, rebuilding, modification or enlargement of buildings, the building permits for which were issued prior to March 13, 1971. All dwellings and buildings referred to in this paragraph may be repaired, rebuilt, modified, or enlarged including, but not limited to, the addition of garages and living space and construction of appurtenant out-buildings, together with such filling, diking and/or draining as may be necessary for the protection of said structures from flood water inundation, consistent with the laws of the Commonwealth of Massachusetts, and in compliance with all other zoning requirements, and provided such construction does not affect the natural flow patterns of any watercourse.

(g) Lot Area Requirements—The portion of any lot in the Wetland and Watershed Protection District may be used to meet the area and yard requirements for the district in which the remainder of the lot is situated provided not less than 20,000 square feet of said lot is outside the Wetland and Watershed Protection District.

(h) If any land in the Wetland and Watershed Protection District is found by the Board of Appeals, after the question has been referred to and

reported on with thirty days by the Planning Board and the Board of Health, not in fact to be subject to seasonal or periodic flooding or unsuitable because of drainage conditions, the Board of Appeals may, after a public hearing with required notice, grant a special permit for the use of such land and for the construction and erection of a building or structure for any purposes permitted in the Residence District providing such use will not endanger the health or safety of the occupants thereof.

(i) **Building Permits**—Whenever an application is made for a building permit on land which the Building Inspector believes may involve the use of land in the Wetland and Watershed Protection District, he shall require the applicant for such permit to provide as part of such application a plan of the lot on which such building is intended to be built, showing elevations of the land contours at one-foot intervals referred to mean sea level datum and certified by a registered Land Surveyor. In the case of a building permit for an interior improvement or addition to a building or structure exempted by paragraph (f), the elevations of land shall not be required.

(j) Wherever in this Section the Board of Appeals is authorized to issue a special permit for an exception, said Board shall assure to a degree consistent with a reasonable use of the location that said use

- (1) does not produce unsuitable development in marshes, bogs and ponds or along watercourses or in areas subject to flooding;
- (2) conserves the value of lands and buildings;
- (3) facilitates the adequate protection and provision of a water supply through preservation and maintenance of the ground water table;
- (4) protects and preserves the inland marshes, bogs, ponds and watercourses and their adjoining wetlands in order to safeguard the purity of inland and coastal waters for the propagation and protection of marine life and for recreational purposes; and
- (5) encourages the most appropriate use of the land.

OTHER WETLAND PROTECTIVE LAWS

In addition to conforming to the Duxbury Wetland and Watershed Protective By-Law any alteration of a wetland must conform to the State Laws.

Coastal Wetlands

Jones Act, 1963, before making any alteration of a salt marsh an application must be made to the Selectmen who will hold a hearing. They make recommendations to the Department of Natural Resources who also hold a hearing and with whom the final decision rests as to what work will be done. In any case shellfish and marine fisheries are specifically protected.

Coastal Wetland Protective Order, was levied on the Duxbury coastal wetlands by the Commissioner of Natural Resources in 1972. The Commissioner may prohibit any work he considers dangerous to the protected resource.

Inland Wetlands

Hatch Act, 1965, recently revised, requires that the Conservation Commission be notified in writing of intent to alter a wetland, specifically, "No person shall remove, fill or dredge any bank, flat, marsh, meadow or swamp bordering on any inland waters without filing written notice of this intention to so remove, fill or dredge, including such plans as may be necessary to describe such proposed activity, with the Conservation Commission or Selectmen if there is no Commission."

Inland Wetland Protective Act, 1968, permits the Commissioner of Natural Resources to restrict specified inland wetlands, and even acquire them by eminent domain under certain circumstances.



BOARD OF APPEALS
TOWN OF DUXBURY, MASSACHUSETTS

FORM OF PETITION RELATIVE TO THE DUXBURY WETLANDS AND WATERSHED
PROTECTIVE BY-LAW

Petitioner must submit an original and five (5) copies of this form, one each to the Appeals Board, the Planning Board, Board of Health, Conservation Commission, Building Inspector, and the Petitioner

- (1) ☐ PETITION FOR EXEMPTION FROM THE DUXBURY WETLANDS AND WATERSHED PROTECTIVE BY-LAW, BY REASON OF ERROR IN THE MAP

Check
Appropriate
Box

- ☐ (a) No permit for immediate use is requested, petitioner will await correction of the map at the next regular town meeting.
(No hearing required)

- ☐ (b) Permit for immediate allowable use requested.
(Hearing required)

- (2) ☐ PETITION FOR PERMIT TO USE PROTECTED LANDS FOR USE REQUIRING A PERMIT FROM THE BOARD OF APPEALS
(Hearing required)

- (3) DESCRIPTION; Duxbury Assessor's Maps

Block	Lot
Block	Lot
Block	Lot

- (4) PARTICULARS; (Refer to bench marks, bounds and contour line where possible. Petitions under 1 (b) and 2 must be accompanied by site plan.)

- (5) FEE: All requests for a hearing must be accompanied by a fee of \$25 payable to the Town of Duxbury. This fee will be refunded if the Board of Appeals concurs with the appellant that all the land in question is exempt by reason of error in the wetlands watershed map.

- (6) SIGNATURE: This form must be signed by the actual owner(s) of the land described above.

Signature of owner

Signature of owner

FUTURE

The areas acquired over these years will serve to good advantage any Town Plan of the future. The Commission feels that Duxbury is extremely fortunate to have had the foresight to set aside Open Space against the time when there will not be adequate open lands. Unlike our less fortunate neighbors who have run out of space and are grasping at making mini-parks and the like, we will have adequate open space to share with them. And this is important. In the future we should share our good fortune with those less fortunate, who through no fault of their own live in areas without Open Space.

And we must acquire more open land to preserve the quality of life we enjoy in Duxbury. Much remains to be done. To finish the Greenbelts, and set up selected open spaces in developing areas, will occupy future Conservation Commissions. Water supply protection will require a major effort. Pollution and waste disposal will concern everyone. Once more Conservation asks —

Why do YOU live in Duxbury?

Are YOU willing to do something positive to maintain the character of Duxbury?

Can YOU afford environmentally and financially not to do something?
Only YOU can conserve Duxbury, nobody else is going to do it for you.

